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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,227	07/15/2003	David L. Zenker	KCC 4975 (K-C 19,019)	8513

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SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

MATZEK, MATTHEW D

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,227

Applicant(s)

ZENKER ET AL.

Examiner

Matthew D. Matzek

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6, 8, 10-13, 15, 16, 18-20, 22, 23 and 27-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6, 8, 10-13, 15, 16, 22, 23, 27-34, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/8/06; 11/18/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Response to Amendment

1. The Amendment dated 12/29/2005 has been fully considered and entered into the Record. Claims 1, 2, 7, 9, 14, 21 and 24-26 have been canceled. New claims 31-37 contain no new matter and have been derived from previously active claims. Claims 3-6, 8, 10-13, 15, 16, 18-20, 22, 23 and 27-37 are currently active. The rejection of claims 1-30 under 35 U.S.C. 112 2nd paragraph has been withdrawn due to amendment. All previously applied art rejections have been withdrawn as all previous independent claims have been canceled and replaced with new claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-6, 8, 10-13, 15, 16 and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (US 6,093,663) in view of May et al. (US 2002/0009940).

a. Ouellette et al. teach an elastic laminate comprising at least one fabric layer and an open cell mesh having first and second strands. The first fibers are deformed such that they are substantially flat in shape and the second fibers are elliptical in shape (Abstract). The Examiner equates the open cell mesh to the woven scrim of Applicant's invention. The applied invention is directed to an elastic absorbent article (col. 1, lines 15-20). The laminate is preferably elastic in at least a portion of the structural direction D, the direction of the second fibers **28**, mislabeled 29 in Figures 1 and 2, and inelastic in the

direction of the first fibers (col. 2, lines 5-13 and col. 3, lines 45-50). The Examiner interprets the applied invention to have first fibers that are the MD fibers of Applicant and second fibers that are CD fibers of Applicant as length/machine direction is directed to the larger dimension and the width/cross direction is directed to the smaller dimension. Applicant is directed to Figures 1 and 2. The inelasticity in the MD and the elasticity in the CD yields an article with a lower stiffness of the absorbent core in the cross direction. Ouellette et al. teach having CD strands with a spacing frequency different from the first strand spacing in the MD (col. 12, lines 1-28), but do not teach having CD zones along the MD with varied strand density.

b. May et al. teach a targeted elastic laminate material having different zones of tension providing the article with improved fit characteristics for disposable personal care products (Abstract). Referring to Figure 10 a pant-like absorbent garment 2 with high-tension (high stiffness) zones 7 and 9 with low-tension (low stiffness) zones 1 and 3 [0096]. In Figure 10 the machine direction is the vertical direction and the cross direction is the horizontal direction. Therefore, the high stiffness zones 7 and 9 run in CD across the MD of the article separated by the low stiffness zones of 1 and 3.

c. Since Ouellette et al. and May et al. are from the same field of endeavor (i.e. personal absorbent articles), the purpose disclosed by May et al. would have been recognized in the pertinent art of Ouellette et al.

d. It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the absorbent article of Ouellette et al. with the differing stiffness zones of May et al. to create an article with improved fit characteristics to

disposable personal care products (Abstract; May et al.). As taught by Ouellette et al. this may be done by varying strand density, strand cross-sectional area, and the modulus of the strands (col. 12, lines 13-18). The article of the combined teachings of Ouellette et al. and May et al. possesses strand spacing that is different in the CD than the MD and has CD strand spacing that is varied in different zones of the MD.

e. Claims 3-6 are rejected as MD fibers have a strand frequency of between 2 and 10 per centimeter and the CD fibers have a strand frequency of between 2 and 5 (col. 12, lines 1-28; Ouellette et al.). This yields a CD to MD strand frequency ratio ranging from 1.0 CD to 1.0 MD to 0.2 CD to 1.0 MD. Claim 8 is rejected as the CD has a different strand spacing frequency than the MD.

f. Claim 15 is rejected as the CD fibers are substantially elliptical with major and minor axes being arranged substantially normal to a plane of the MD strands (Abstract; Ouellette et al.). The MD fibers are left with a flattened elliptical shape in the final product (Figures 1 and 2; Ouellette et al.). Claim 16 is rejected as the article of Ouellette et al. may have a CD strand density of 5 per centimeter with a cross-sectional area of 0.003cm^2 and a MD strand density of 2 strands per centimeter with a cross-sectional area of 0.03cm^2 (col. 12, lines 1-15). Therefore if the strands have the same facial shape this allows for CD strands with a lesser minor axis (diameter for circular strands) than the MD strands (0.0006 cm^2 or a diameter of 0.028 cm per CD strand and 0.0015 cm^2 or diameter of 0.044 cm per MD strand). This provides for a CD/MD diameter ratio of 0.63. The CD/MD diameter ratio is a result effective variable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the

article of Ouellette et al. with a strand diameter ratio of less than about 0.5, since it has been held discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

g. Claims 27-30 are rejected as the structural limitations set forth in claim 31 have been met and as such can serve as an absorbent article in the instantly claimed garments.

3. Claims 22 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (US 6,093,663) as applied to claim 1 above, and further in view of Ducker et al. (US 5,622,581). The invention of Ouellette et al. is silent as to the weakening of the CD strands along their lengths to enhance buckling.

a. Ducker et al. disclose a disposable garment with de-elasticized elastic members via macerators, chemicals, selective laser beams, heat and freezing (Abstract). In the applied invention the elastic strands can be deactivated at points on the web (1) where it is desired to reduce or to eliminate the elastic tension in the finished product (col. 3, lines 28-34 and Figure 1). The means applied to the elastic members are meant to cut or weaken the elastic (col. 4, lines 4-13). Weakened elastic members remain continuous following treatment.

b. Since Ouellette et al. and Ducker et al. are from the same field of endeavor (i.e. absorbent articles), the purpose disclosed by Ducker et al. would have been recognized in the pertinent art of Ouellette et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have de-elasticized at least some of the CD strands of the invention of Ouellette et al. The skilled artisan would have been motivated by the desire

Art Unit: 1771

to create an article with varying elasticity within the absorptive article in order to prevent undesired discomfort or looseness in the absorptive areas, while remaining elastic in other areas.

4. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (US 6,093,663) as applied to claim 22 above, and further in view of Schafer et al. (US PG Pub 2004/0092898). Ouellette et al. and Ducker et al. are silent as to the use of calcium carbonate as the chemical means by which the CD strands are de-elasticized.

a. Schafer et al. disclose a breathable absorbent thong shaped sanitary napkin or panty liner (Abstract). The applied publication teaches the incorporation of particles of calcium carbonate into a polymeric backsheet for said absorbent napkin and due to the incompatibility of the calcium carbonate and polymer cracks are formed through the layer of polymer to form micropores, which allow water vapor to permeate through the film (para 67).

b. Since Ouellette et al. and Schafer et al. are from the same field of endeavor (i.e. absorbent articles), the purpose disclosed by Schafer et al. would have been recognized in the pertinent art of Ouellette et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have incorporated calcium carbonate into the strands of Ducker et al. that make up the reinforcing scrim. The skilled artisan would have been motivated by the desire to deactivate the elastic strands at points on the web via chemical means.

5. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette et al. (US 6,093,663) in view of Dean (US 4,107,371). Ouellette et al. is silent as to the

Art Unit: 1771

weaving of the MD and CD strands in a manner that allows for the CD to woven under and over the MD strands.

a. Dean teaches the use of an open weave that is relatively stiff in one direction and relatively flexible in other direction (Abstract). Adjacent parallel strands arranged with one strand over and the next strand under in alternating interlocking relationship at the point of crossing each of respective monofilaments in the filling direction. The strands are then stabilized by fusion of the thermoplastic polymer at the point of the strands' intersection (Abstract). While Dean teaches flexibility in the warp direction (MD) and stiffness in the filling direction (CD) the emphasis of Dean's disclosure is provide relative flexibility in one direction and relative stiffness in the other. Therefore, an article may be constructed with flexibility in the filling direction (CD) and stiffness in the warp direction (MD).

b. Since it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24.

c. The combined articles of Ouellette et al. and Dean would result in an article that has possesses a scrim member with MD and CD strands crossing over one another with a stiffness in the CD that is less than the MD. The CD strands are corrugated and forms peaks and valleys along the CD with the MD stands being arranged to engage the CD stands across the peaks and valleys thereof. This fiber orientation provided by Dean allows for flexibility in the CD and stiffness in the MD.

Allowable Subject Matter

6. Claims 18-20 and 35 are deemed allowable at this point in prosecution. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach the unique combination within an absorbent article that has a scrim member comprising MD and CD strands with the CD strands having lower stiffness than the MD strands, some of the CD strands being continuous and having weakened points along their lengths to enhance buckling at points between the MD stands that are offset from the adjacent CD strands.

Response to Arguments

7. Applicant's arguments with respect to claims 3-6, 8, 10-13, 15, 16, 18-20, 22, 23 and 27-30 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant argues that previously active claim 17, which is currently active claim 34, that Ducker et al. only teaches the de-elasticizing of fibers by creating fibers that are no longer continuous. Examiner agrees that Ducker et al. do teach this process, however Ducker et al. also teach the weakening of the elastic (col. 4, lines 4-13). Weakened elastic members remain continuous following treatment. Discontinuous fibers cannot be weakened, as they are no longer whole fibers but a series of fragmented fibers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER